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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
NGUYEN, CHAU T	
ART UNIT	**PAPER NUMBER**
2176	17

DATE MAILED: 12/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/477,021	CHANDRUPATLA ET AL.	
	Examiner	Art Unit	
	Chau Nguyen	2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 August 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-66* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-66* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. Amendment C, received on 08/11/2003, has been entered. Claims 1-66 are presented for examination.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-7, 25-29, 40, and 43-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chuah et al., U.S. Patent No. 6,400,722 and further in view of Holt et al., U.S. Patent No. 6,070,192.

4. As to claim 1, Chuah discloses a method for centrally managing a computer network, including of:

maintaining a central database of all NASes (Network Access Servers) known to the computer network (col. 1, lines 29-54 and col. 9, lines 10-48: plural inter-working function modules (IWFs) which are considered as network access servers (NASes) in

the network; and col. 33, lines 45-53, col. 39, lines 28-54: NASes are connected to a data center); and

broadcasting a message to a NAS list located at each POP (Point Of Presence) in the computer network whenever said central database is changed, said message containing information regarding the change (col. 1, lines 29-54 and col. 42, line 52 – col. 44, line 37).

However, Chuah does not disclose broadcasting a message from said central database to a NAS list. In the same field of endeavor, Holt discloses a data access transport system comprising a plurality of network access server (NASes) and a network controller 12 connected to the network servers (col. 3, line 64 – col. 4, line 26). Holt also discloses a list of NAS identifiers stored in the network controller (database), and in addition, Holt discloses the network controller 12 may send a status indication to one or more NAS (col. 10, lines 25-46, and col. 12, line 27 – col. 13, line 7). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Holt and Chuah to include broadcasting a message from said central data to a NAS list. Holt suggests that the network controller 12 send a status indication to the network access servers to updates its information.

5. As to claim 2, Chuah and Holt (Chuah-Holt) disclose wherein all of the NASes known to the computer network are all NASes within the computer network which have been chosen as being valid (col. 20, line 24 – col. 21, line 13: a password authentication protocol (PAP authentication request is sent to the home NASes for validating).

6. As to claims 3, Chuah discloses all the limitation as discussed above. However, Chuah et al. do not disclose said maintaining is performed by a Network Control Console. In the same field of endeavor, Holt et al. disclose a network controller comprises means for maintaining a record of tunnels currently connected between NASes and network gateways (col. 4, line 27 – col. 5, line 64). Since Chuah discloses the optimum route between the serving inter-working function (NAS) and the desired communication server is determined, which is similar to a data communications using network access servers (NASes) of Holt, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Chuah et al. and Holt et al. to include a network controller for maintaining a record of tunnels connected between NASes and network gateways because Holt et al. suggest that using network controller for deriving operational data from at least one of connection setup requests, connection setup responses, connection release requests, connection release acknowledgements and error conditions detected by the network controller.

7. As to claim 4, Chuah and Holt (Chuah-Holt) disclose said Network Control Console is a graphical interface (Holt, col. 9, lines 50-61 and Fig. 2).

8. As to claim 5, Chuah-Holt disclose said maintaining includes adding NASes, deleting NASes, and modifying the entries of NASes in the central database as the

need arises (Holt, col. 5, lines 47-64 and col. 10, lines 36-46, Chuah, col. 10, line 49 – col. 11, line 3).

9. As to claim 6, Chuah-Holt disclose wherein said broadcasting is performed automatically by a broker whenever a change to said central database is made (col. 19, line 42 – col. 20, line 5).

10. As to claim 7, Chuah-Holt disclose wherein said broadcasting includes publishing a broker event via a broker (col. 19, line 42 – col. 20, line 5).

11. Claims 25-29, 40, and 43-49 are corresponding apparatus and program storage device claims containing similar limitations as discussed in the method of claims 1-7; therefore, they are rejected under the same rationale.

12. Claims 8-24, 30-39, 41-42, and 50-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holt et al., U.S. Patent No. 6,070,192 and further in view of Chuah et al., U.S. Patent No. 6,400,722.

13. As to claim 8, Holt discloses a method for locally processing an access request at a in a computer network, said access request received from a NAS, the method including:

accessing a list of network access servers (NASes) and the computer network (col. 10, lines 36-46); and

validating that said access request was received from a known entity by determining if an entry exists in said list for the NAS from which the access request was received (col. 10, lines 36-46).

However, Holt does not disclose said list of NASes known to the PoP and located locally at the PoP. In the same field of endeavor, Chuah discloses internet service provider (ISP) deploys and manages one or more points of presence (PoPs) in its service are to which end users connect for network service (col. 1, lines 29-54 and col. 9, lines 10-48). Since Holt discloses a data communications using network access servers (NASes), which is similar to the optimum route between the serving inter-working function (NAS) and the desired communication server is determined of Chuah, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Holt an Chuah to include one or more points of presence (POPs) in service of ISP because Chuah suggests that by providing more points of presence, end users access the ISP by dialing the nearest POP and running a communication protocol known as point-to-point protocol (PPP).

14. As to claim 9, Holt and Chuah (Holt-Chuah) disclose retrieving a user record from a database of user records located locally at said PoP, said database of user records containing records for those users who have been identified as having the PoP as their home PoP (Chuah, col. 10, line 33-45 and col. 11, lines 21-42).

15. As to claim 10, Holt-Chuah disclose each entry in said list contains a field identifying a NAS and a field identifying a dictionary of attributes supported by the corresponding NAS (Holt, col. 9, lines 15-49 and col. 12, line 64 –col. 13, line 7)..

16. As to claims 11 and 15, Holt-Chuah disclose wherein said dictionary of attributes is a RADIUS (Holt, col. 9, lines 15-49; Chuah, col. 27, lines 25-53).

17. As to claim 12, Holt-Chuah disclose wherein said each entry in said list contains fields for:

a domain name of a NAS (Chuah, col. 27, lines 25-53: NAS-IP-Address);

a vendor name of the NAS (Chuah, col. 27, lines 25-53: AP-IP-Address, or AP-MAC-Address);

a shared secret between all known NASes and AAA servers in the network (Chuah, col. 25, lines 46-49 and col. 27, lines 25-53: user password attribute); and

a dictionary name, said dictionary name indicating a dictionary of attributes supported by said NAS (Chuah, col. 27, lines 25-53: Xtunnel Protocol Parameters).

18. As to claim 13, Holt-Chuah disclose wherein said validating further includes validating that said access request was received from a known entity by determining if the domain name that the access request was received from matches the domain name field of any entry in said list (Chuah, col. 35, line 36 – col. 36, line 67).

19. As to claim 14, Holt-Chuah disclose wherein said validating further including examining whether a password supplied with said access request matches the shared secret field of a corresponding entry in said list if the domain name that the access request was received from matches the domain name field of any entry in said list (Chuah, col. 33, lines 16-26).

20. As to claim 16, Holt-Chuah disclose wherein said accessing and validating are performed by an Authentication, Authorization, and Accounting (AAA) server (Holt, col. 7, line 60 – col. 8, line 37).

21. As to claim 17, Holt-Chuah disclose subscribing to a broker event to update said list whenever NAS known to the computer network is added, deleted, or modified (Holt, col. 5, lines 47-64 and col. 10, lines 36-46, Chuah, col. 10, line 49 – col. 11, line 3).

22. As to claim 18, Holt discloses a method for handling an access request at a PoP, said access request generated by a user logging on to said PoP, said user having a home PoP, the method including:

accessing a list of network access servers (NASes) and the computer network (col. 10, lines 36-46); and

validating that said access request was received from a known entity by determining if an entry exists in said list for the NAS from which the access request was received (col. 10, lines 36-46).

determining if said user's home PoP is said PoP (col. 10, lines 10-46);

forwarding said access request to an AAA server located at said PoP if said user's home PoP is said PoP (col. 10, line 10 - col. 11, line 36);

However, Holt does not disclose said list of NASes known to the PoP and located locally at the PoP. In the same field of endeavor, Chuah discloses internet service provider (ISP) deploys and manages one or more points of presence (PoPs) in its service are to which end users connect for network service (col. 1, lines 29-54 and col. 9, lines 10-48). Chuah also discloses determining if said user's home PoP is said PoP (col. 1, lines 29-54 and col. 19, lines 5-28: the registration server uses User-Name from the user registration agent (user's home PoP) to determine the end system's home network). Since Holt discloses a data communications using network access servers (NASes), which is similar to the optimum route between the serving inter-working function (NAS) and the desired communication server is determined of Chuah, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Holt an Chuah to include one or more points of presence (POPs) in service of ISP because Chuah suggests that by providing more points of presence, end users access the ISP by dialing the nearest POP and running a communication protocol known as point-to-point protocol (PPP).

23. As to claim 19, Holt-Chuah disclose wherein said determining, forwarding, and relaying are performed by a Protocol Gateway (Holt, col. 9, lines 15-49)

24. As to claim 20, Holt-Chuah disclose wherein said determining includes examining a user name entered by said user (Chuah, col. 19, lines 5-28).

25. As to claim 21, Holt-Chuah disclose wherein said determining further includes parsing said user name to reveal a PoP location indicated within said user name (Chuah, col. 34, lines 18-28).

26. As to claim 22, Holt-Chuah disclose wherein said PoP location indicated within said user name is a city name as a prefix to said user name (Chuah, col. 26, lines 7-48 and col. 34, lines 18-28).

27. As to claim 23, Holt-Chuah disclose wherein said PoP location indicated within said user name is an abbreviation for a city name contained within a domain name affixed to the end of said user name (Chuah, col. 26, lines 7-48 and col. 34, lines 18-28).

28. As to claim 24, Holt-Chuah disclose wherein said determining further includes parsing said user names to reveal a domain name, said domain name indicating an ISP in control of said home PoP (Chuah, col. 26, lines 7-48 and col. 34, lines 18-28). Holt

discloses a data access transport system comprising a plurality of network access server (NASes) and a network controller 12 connected to the network servers (col. 3, line 64 – col. 4, line 26). Holt also discloses a list of NAS identifiers stored in the network controller (database), and in addition, Holt discloses the network controller 12 may send a status indication to one or more NAS (col. 10, lines 25-46, and col. 12, line 27 – col. 13, line 7).

29. Claims 30-39, 41-42, and 50-66 are corresponding apparatus and program storage device containing similar limitations as discussed in the method of claims 8-24; therefore, they are rejected under the same rationale.

Response to Arguments

30. In the remarks, Applicant argued in substance that

(A) Prior art does not disclose a central database of all NASes.

As to point (A), Chuah discloses The POPs and the ISP's data center 14 are connected together over the intranet backbone through router 12A (col. 1, lines 29-54, col. 9, lines 10-48: plural inter-working function modules (IWFs) which are considered as network access servers (NASes) in the network; and col. 33, lines 45-53, col. 39, lines 28-54). In the same field of endeavor, Holt discloses a data access transport system comprising

a plurality of network access server (NASes) and a network controller 12 connected to the network servers (col. 3, line 64 – col. 4, line 26). Holt also discloses a list of NAS identifiers stored in the network controller (database), and in addition, Holt discloses the network controller 12 may send a status indication to one or more NAS (col. 10, lines 25-46, and col. 12, line 27 – col. 13, line 7).

(B) Prior art does not disclose accessing of a list of NASes known to the PoP and the computer network, the list located locally at the PoP.

As to point (B), Chuah discloses internet service provider (ISP) deploys and manages one or more points of presence (PoPs) in its service are to which end users connect for network service (col. 1, lines 29-54 and col. 9, lines 10-48)

31. Applicant's arguments and amendments filed on 02/25/2003have been fully considered but they are not deemed fully persuasive. Applicant's arguments with respect to claims 1 and 43 have been considered but are moot in view of the new ground(s) of rejection as explained here below, necessitated by Applicant's substantial amendment (i.e., broadcasting a message from said central database to a NAS list) to the claims which significantly affected the scope thereof.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau Nguyen whose telephone number is (703) 305-4639. The Examiner can normally be reached on Monday-Friday from 8:00 am to 6:00 pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Joseph Feild, can be reached at (703) 305-9792.

The fax phone numbers for the organization where this application is assigned are as follows:

(703) 872-9306 (After Final Communications only)

(703) 872-9306 (Official Communications)

(703) 746-7240 (for Official Status Inquiries, Draft Communications only)

Inquiries of a general nature relating to the general status of this application or proceeding should be directed to the 2100 Group receptionist whose telephone number is (703) 305-3900.

Chau Nguyen
Patent Examiner
Art Unit 2176

JOSEPH H. FEILD
PRIMARY EXAMINER